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EXAMINER

BHAT, ADITYA S

ART UNIT PAPER NUMBER

2863

DATE MAILED: 10/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/021,860

Applicant(s)

COHEN ET AL.

Examiner

Aditya S Bhat

Art Unit

2863

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 13 December 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 December 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-8 are rejected under 35 U.S.C. 102(b) as being anticipated by

Alvesteffer et al. (USPN 6,125,695)

With regards to claim 1, Alvesteffer et al. (USPN 6,125,695) teaches a differential pressure sensor comprising:

a fluid channeling device having a fluid channel defined there through and a fluid flow detector located in said fluid channel (See Figure 1);

a circuit coupled to said fluid flow detector for detecting a change in fluid flow through said fluid channel (See figure 6); and

memory having stored therein a characteristic of said fluid channeling device (See figure 10)

With regards to claim 2, Alvesteffer et al. (USPN 6,125,695) teaches a first thermistor provided at a first location in said fluid channel; and a second thermistor provided at a second location in said fluid channel. (Col.2, lines 3-5)

With regards to claim 3, Alvesteffer et al. (USPN 6,125,695) teaches a fluid flows through said fluid channel in a fluid flow direction, and wherein said second location is downstream from said first location in the fluid flow direction.(See figure 7)

With regards to claim 4, Alvesteffer et al. (USPN 6,125,695) teaches a fluid channeling device comprises:

an input hose; (see figure 7)

an output hose; (see figure 7)and

a fluid container having an input aperture to which said input hose is coupled and an output aperture to which said output hose is coupled, and wherein said characteristic of said fluid channeling device stored in said memory comprises calibration data for said input hose and said output hose.(See figure 6)

With regards to claim 5, Alvesteffer et al. (USPN 6,125,695) teaches a characteristic of said fluid channel device comprises a first constant K1 and a second constant K2. (Col. 6, lines 40-42)

With regards to claim 6, Alvesteffer et al. (USPN 6,125,695) teaches a wheatstone bridge circuit having four resistors, one: of which is said second thermistor;

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and a voltage divider circuit having two resistors, one of which is said first thermistor. (see figure 5)

With regards to claim 7, Alvesteffer et al. (USPN 6,125,695) teaches a second thermistor is operated in constant temperature mode. (Col.8, lines 19-21)

With regards to claim 8, Alvesteffer et al. (USPN 6,125,695) teaches a circuit further comprises an operational amplifier electrically coupled to said wheatstone bridge circuit to maintain said wheatstone bridge circuit in a balanced condition. (see figure 3)

Claims 9-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Fauque et al. (USPN 6,220,080).

With regards to claim 9, Fauque et al. (USPN 6,220,080) teaches a method of calibrating a differential pressure sensor comprising the steps of:

(a) providing a calibration system having an enclosure with a pressure chamber and a controller for controlling a pressure with the pressure chamber; (Col.1, lines 25-45)

(b) coupling a pressure sensor to be calibrated to the calibration system and controller;(44 &50; See figure 1)

(c) setting a pressure within the pressure chamber;( Col.1, lines 25-45)

(d) recording an output signal of the pressure sensor to be calibrated indicative of its response to the pressure set within the pressure chamber in step (c); (Col.6, lines 10-13 )

(e) calculating a constant for the pressure sensor to be calibrated based on the output signal recorded in step (d); and (Col. 6, lines 3-19)

(f) writing the constant in a memory of the pressure sensor to be calibrated.(Col.5, line 63)

With regards to claim 10, Fauque et al. (USPN 6,220,080) teaches the step of repeating steps (c) through (e) for a predetermined number of iterations.

Claims 11-27 are rejected under 35 U.S.C. 102(b) as being anticipated by Nishimura et al. (USPN 4,264,961).

With regards to claim 11, Nishimura et al. (USPN 4,264,961) teaches a system for controlling air flow in an enclosure having a chamber defined therein, said system comprising:

a supply air system coupled to the chamber for providing air flow into the chamber; (See figure 1) and

a first differential pressure sensor (20;Col.8, line 20) coupled to said supply air system and comprising: an air channeling device having an air channel defined there through and an air flow detector located in said air channel; (Col. 8, lines 11-26)

a circuit coupled to said air flow detector for detecting a change in air flow through said air channel; ( See figure 5) and

memory having stored therein a characteristic of said air channeling device; (207 &209 figure 2)

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a first differential pressure sensor controlling said supply air system to maintain a predetermined airflow in the enclosure. (Col. 8, lines 11-26)

With regards to claim 12, Nishimura et al. (USPN 4,264,961) teaches a air flow detector comprising: a first thermistor provided at a first location in said air channel; and a second thermistor provided at a second location in said air channel air flows through said air channel in an air flow direction, and wherein said second location is downstream from said first location in the air flow direction. (Col. 9, lines 35-55)

With regards to claim 14, Nishimura et al. (USPN 4,264,961) teaches an air channeling device comprises: an input hose; an output hose; and a container having an input aperture to which said input hose is coupled and an output aperture to which said output hose is coupled, and wherein said characteristic of said air channeling device stored in said memory comprises calibration data for said input hose and said output hose. (see figure 5)

With regards to claim 15, Nishimura et al. (USPN 4,264,961) teaches a characteristic of said air channeling device comprises a first constant K, and a second constant KZ. (Col. 5, lines 5-15)

With regards to claim 16, Nishimura et al. (USPN 4,264,961) teaches a wheatstone bridge circuit having four resistors, one of which is said second thermistor; and a voltage divider circuit having two resistors, one of which is said first thermistor. (See figure 10)

With regards to claim 17, Nishimura et al. (USPN 4,264,961) teaches a second thermistor is operated in constant temperature mode.

With regards to claim 18, Nishimura et al. (USPN 4,264,961) teaches the circuit further comprises an operational amplifier electrically coupled to said wheatstone bridge circuit to maintain said wheatstone bridge circuit in a balanced condition. (See figure 10)

With regards to claim 19, Nishimura et al. (USPN 4,264,961) teaches an exhaust air system coupled to the chamber for providing airflow out of the chamber. (See figure 1)

With regards to claim 20, Nishimura et al. (USPN 4,264,961) teaches a second differential pressure sensor coupled to said exhaust air system and comprising: an air channeling device having an air channel defined there through and a air flow detector located in said air channel; a circuit coupled to said air flow detector for detecting a change in air flow through said air channel; and memory having stored therein a characteristic of said air channeling device; said second differential pressure sensor controlling said exhaust air system to maintain a predetermined air flow in the enclosure.

With regards to claim 21, Nishimura et al. (USPN 4,264,961) teaches a first thermistor provided at a first location in said air channel; and a second thermistor provided at a second location in said air channel.

With regards to claim 22, Nishimura et al. (USPN 4,264,961) teaches a system where air flows through said air channel in an air flow direction, and wherein said second location is downstream from said first location in the air flow direction.

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With regards to claim 23, Nishimura et al. (USPN 4,264,961) teaches an input hose; an output hose; and a container having an input aperture to which said input hose is coupled and an output aperture to which said output hose is coupled, and wherein said characteristic of said air channeling device stored in said memory comprises calibration data for said input hose and said output hose. (See figure 7)

With regards to claim 24, Nishimura et al. (USPN 4,264,961) teaches air-channeling device comprises a first constant K1 and a second constant Kz. (Col. 5, lines 1-15)

With regards to claim 25, Nishimura et al. (USPN 4,264,961) teaches a wheatstone bridge circuit having four resistors, one of which is said second thermistor; and a voltage divider circuit having two resistors, one of which is said first thermistor. (see figure 10)

With regards to claim 26, Nishimura et al. (USPN 4,264,961) teaches second thermistor is operated in constant temperature mode. (see figure 10)

With regards to claim 27, Nishimura et al. (USPN 4,264,961) teaches the circuit further comprises an operational amplifier electrically coupled to said wheatstone bridge circuit to maintain said wheatstone bridge circuit in a balanced condition. (See figure 10)

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Craigen et al. (USPN 4,719,806) teaches a fluid flow monitor probe, Bohrer (USPN 4,566,320) teaches a fluid flow sensing means with ambient temperature compensation, Kofed et al (USPN 5,535,633) teaches a differential pressure sensor for respiratory monitoring, Drexel (USPN 5,311,762) teaches a flow sensor calibration, Nishimura et al (USPN 4,562,731) teaches an air flow meter, Carr et (USPN 5,819,721) al. teaches a flow control system, and Yamagishi et al. (USPN 6,588,268) teaches a flow rate sensor, temperature sensor and flow rate detecting apparatus.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aditya S Bhat whose telephone number is 703-308-0332. The examiner can normally be reached on M-F 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached on 703-308-3126. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-5841 for regular communications and 703-308-5841 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

Aditya Bhat  
September 17, 2003



John Barlow  
Supervisory Patent Examiner  
Technology Center 2800